

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) An information record medium on which there are recorded:

a object data file for storing, by a unit of packet, object data which includes (a) main stream including video information to indicate a main-video[[]] and

~~— sub video information set having (i) sub video information (b) sub stream including a plurality of button information to indicate a plurality of buttons—a sub-video displayable at least partially over the main-video and (ii) header information appended to the sub video information and including: button information for defining a button video part which functions to function as a button in the sub stream; sub video; and highlight information for defining how to perform highlight display control with respect to the button video part~~

— a play list information file for managing, by a unit of item, the object data; and

— an object information file for indicating an address of the object data which is specified by the item, wherein

— at least one of the plurality of button information includes normal button information for displaying a normal state button, selected button information for displaying a selected state

button, and activated button information for displaying an activated state button.

2. (currently amended) The information record medium according to claim 1, wherein the button information defines an opaque video part in a rectangular area placed in the sub-stream ~~sub-video~~ information, ~~as the button video part.~~

3-5. (canceled)

6. (original) An information record medium on which there are recorded:

video information to indicate a main-video;

sub-video information set having sub-video information to indicate a sub-video displayable at least partially over the main-video and header information appended to the sub-video information; and

sub-video control information including: (i) sub-frame range information for specifying at least a partial area of the sub-video as a sub-frame; (ii) button information for defining the sub-frame displayed over the main-video, as a button video part which functions as a button; and (iii) highlight information for defining how to perform highlight display control with respect to the sub-frame.

7. (original) The information record medium according to claim 6, wherein the main-video information, the sub-video information set, and the sub-video control information are divided into

predetermined packet units and multiplexed, and further streamed respectively into a video stream composed of the divided main-video information, a sub-picture stream composed of the divided sub-video information set, and a control information stream composed of the divided sub-video control information.

8. (original) The information record medium according to claim 1, wherein the button information further defines a button command to be executed if the button is operated.

9. (original) The information record medium according to claim 6, wherein the button information further defines a button command to be executed if the button is operated.

10. (canceled)

11. (original) The information record medium according to claim 6, wherein the highlight information defines which display aspect is used for highlight-display out of a predetermined types of display aspects set in advance, in accordance with in which button state a button displayed on the main-video is out of a predetermined types of button states set in advance, as how to perform the highlight display control.

12. (currently amended) An information record apparatus comprising:

a first record device for recording a object data file for storing, by a unit of packet, object data which includes (a) main stream including video information to indicate a main-video; and
~~_____ a second record device for recording sub video information set having (i) sub video information (b) sub stream including a plurality of button information to indicate a plurality of buttons a sub video displayable at least partially over the main-video and (ii) header information appended to the sub video information and including: button information for defining a button video part which functions to function as a button in the sub stream; sub-video; and highlight information for defining how to perform highlight display control with respect to the button video part~~
_____ a second record device for recording a play list information file for managing, by a unit of item, the object data; and
_____ a third record device for recording an object information file for indicating an address of the object data which is specified by the item, wherein
_____ at least one of the plurality of button information includes normal button information for displaying a normal state button, selected button information for displaying a selected state button, and activated button information for displaying an activated state button.

13. (original) An information record apparatus comprising:

a first record device for recording video information to indicate a main-video;

a second record device for recording sub-video information set having sub-video information to indicate a sub-video

displayable at least partially over the main-video and header information appended to the sub-video information; and

a third record device for recording sub-video control information including: (i) sub-frame range information for specifying at least a partial area of the sub-video as a sub-frame; (ii) button information for defining the sub-frame displayed over the main-video, as a button video part which functions as a button; and (iii) highlight information for defining how to perform highlight display control with respect to the sub-frame.

14. (currently amended) An information record method comprising:

a first record process of recording a object data file for storing, by a unit of packet, object data which includes (a) main stream including video information to indicate a main-video; and
~~— a second record process of recording sub video information set having (i) sub video information (b) sub stream including a plurality of button information to indicate a plurality of buttons~~
~~a sub-video displayable at least partially over the main-video and (ii) header information appended to the sub video information and including: button information for defining a button video part which to function functions as a button in the sub stream; sub-video; and highlight information for defining how to perform highlight display control with respect to the button video part~~
a second record process of recording a play list information file for managing, by a unit of item, the object data; and

a third record process of recording an object information file for indicating an address of the object data which is specified by the item, wherein

at least one of the plurality of button information includes normal button information for displaying a normal state button, selected button information for displaying a selected state button, and activated button information for displaying an activated state button.

15. (original) An information record method comprising:

a first record process of recording video information to indicate a main-video;

a second record process of recording sub-video information set having sub-video information to indicate a sub-video displayable at least partially over the main-video and header information appended to the sub-video information; and

a third record process of recording sub-video control information including: (i) sub-frame range information for specifying at least a partial area of the sub-video as a sub-frame; (ii) button information for defining the sub-frame displayed over the main-video, as a button video part which functions as a button; and (iii) highlight information for defining how to perform highlight display control with respect to the sub-frame.

16. (currently amended) An information reproduction apparatus for reproducing information on an information record medium on which there are recorded: a object data file for storing, by a unit of

packet, object data which includes (a) main stream including video information to indicate a main-video[[;]] and—sub video information set having (i) sub video information (b) sub stream including a plurality of button information to indicate a plurality of buttons—a sub video displayable at least partially over the main-video and—(ii) header information appended to the sub video information and including: button information for defining a button video part which functions to function as a button in the sub stream; sub video; and highlight information for defining how to perform highlight display control with respect to the button video part a play list information file for managing, by a unit of item, the object data; and an object information file for indicating an address of the object data which is specified by the item, wherein at least one of the plurality of button information includes normal button information for displaying a normal state button, selected button information for displaying a selected state button, and activated button information for displaying an activated state button,

said information reproduction apparatus comprising:

a reading reproduction device for reading out the object data file, the play list file and the object information file reproducing the video information and the sub video information set;

a display output device capable of displaying and outputting the button the sub video information in the reproduced sub video information set, over the reproduced video information; and

a control device for controlling the display output device to highlight display the button video part, on the basis of the

~~button information and the highlight information included in the header information in the reproduced button information sub-video information set.~~

17. (previously presented) An information reproduction apparatus for reproducing information on an information record medium on which there are recorded: video information to indicate a main-video; sub-video information set having sub-video information to indicate a sub-video displayable at least partially over the main-video and header information appended to the sub-video information; and sub-video control information including: (i) sub-frame range information for specifying at least a partial area of the sub-video as a sub-frame; (ii) button information for defining the sub-frame displayed over the main-video, as a button video part which functions as a button; and (iii) highlight information for defining how to perform highlight display control with respect to the sub-frame,

said information reproduction apparatus comprising:

a reproduction device for reproducing the video information, the sub-video information set, and the sub-video control information;

a display output device capable of displaying and outputting the sub-video information in the reproduced sub-video information set, over the reproduced video information; and

a control device for controlling the display output device to highlight-display the sub-frame as the button video part, on the basis of the button information and the highlight information included in the reproduced sub-video control information.

18. (currently amended) An information reproduction method of reproducing information on an information record medium on which there are recorded: a object data file for storing, by a unit of packet, object data which includes (a) main stream including video information to indicate a main-video[[;]] and—sub video information set having (i) sub video information (b) sub stream including a plurality of button information to indicate a plurality of buttons—a sub video displayable at least partially over the main-video and—(ii) header information appended to the sub video information and including: button information for defining a button video part which functions to function as a button in the sub stream; sub video; and highlight information for defining how to perform highlight display control with respect to the button video part, a play list information file for managing, by a unit of item, the object data; and an object information file for indicating an address of the object data which is specified by the item, wherein at least one of the plurality of button information includes normal button information for displaying a normal state button, selected button information for displaying a selected state button, and activated button information for displaying an activated state button,

said information reproduction method comprising:

a reading reproduction process of reading out the object data file, the play list file and the object information file reproducing the video information and the sub video information set;

a display output process capable of outputting the button information, over the reproduced video information; and

~~a control process of controlling the a display output process device capable of displaying and outputting the sub video information in the reproduced sub video information set, over the reproduced video information, to highlight display the button video part, on the basis of the button information and the highlight information included in the header information in the reproduced button information sub video information set.~~

19. (previously presented) An information reproduction method of reproducing information on an information record medium on which there are recorded: video information to indicate a main-video; sub-video information set having sub-video information to indicate a sub-video displayable at least partially over the main-video and header information appended to the sub-video information; and sub-video control information including: (i) sub-frame range information for specifying at least a partial area of the sub-video as a sub-frame; (ii) button information for defining the sub-frame displayed over the main-video, as a button video part which functions as a button; and (iii) highlight information for defining how to perform highlight display control with respect to the sub-frame,

said information reproducing method comprising:

a reproduction process of reproducing the video information, the sub-video information set, and the sub-video control information; and

a control process of controlling a display output device capable of displaying and outputting the sub-video information in the reproduced sub-video information set, over the reproduced video information, to highlight-display the sub-frame as the button video part, on the basis of the button information and the highlight information included in the reproduced sub-video control information.

20. (currently amended) An information record reproduction apparatus comprising:

a first record device for recording a object data file for storing, by a unit of packet, object data which includes (a) main stream including video information to indicate a main-video[[]] and

~~—— a second record device for recording sub video information set having (i) sub video information (b) sub stream including a plurality of button information to indicate a plurality of buttons a sub video displayable at least partially over the main-video and (ii) header information appended to the sub video information and including: button information for defining a button video part which functions to function as a button in the sub stream; sub video; and highlight information for defining how to perform highlight display control with respect to the button video part~~

a second record device for recording a play list information file for managing, by a unit of item, the object data;

a third record device for recording an object information file for indicating an address of the object data which is specified by the item;

~~a reading-reproduction device for reading out the object data file, the play list file and the object information file reproducing the video information and the sub-video information set;~~

~~a display output device capable of displaying and outputting the button the sub-video information in the reproduced sub-video information set, over the reproduced video information; and~~

~~a control device for controlling the display output device to highlight display the button-video part, on the basis of the button information and the highlight information included in the header information in the reproduced button information-sub-video information set, wherein~~

~~at least one of the plurality of button information includes normal button information for displaying a normal state button, selected button information for displaying a selected state button, and activated button information for displaying an activated state button.~~

21. (previously presented) An information record reproduction apparatus comprising:

~~a first record device for recording video information to indicate a main-video;~~

~~a second record device for recording sub-video information set having sub-video information to indicate a sub-video displayable at least partially over the main-video and header information appended to the sub-video information;~~

~~a third record device for recording sub-video control information including: (i) sub-frame range information for~~

specifying at least a partial area of the sub-video as a sub-frame; (ii) button information for defining the sub-frame displayed over the main-video, as a button video part which functions as a button; and (iii) highlight information for defining how to perform highlight display control with respect to the sub-frame;

a reproduction device for reproducing the video information, the sub-video information set, and the sub-video control information;

a display output device capable of displaying and outputting the sub-video information in the reproduced sub-video information set, over the reproduced video information; and

a control device for controlling the display output device to highlight-display the sub-frame as the button video part, on the basis of the button information and the highlight information included in the reproduced sub-video control information.

22. (currently amended) An information record reproduction method comprising:

a first record process of recording a object data file for storing, by a unit of packet, object data which includes (a) main stream including video information to indicate a main-video[[]] and

~~—— a second record process of recording sub video information set having (i) sub video information (b) sub stream including a plurality of button information to indicate a plurality of buttons a sub video displayable at least partially over the main-video and (ii) header information appended to the sub video information and~~

~~including: button information for defining a button video part which to function functions as a button in the sub stream; sub-video; and highlight information for defining how to perform highlight display control with respect to the button video part~~

~~_____ a second record process of recording a play list information file for managing, by a unit of item, the object data;~~

~~_____ a third record process of recording an object information file for indicating an address of the object data which is specified by the item;~~

~~a reading-reproduction process of reading out the object data file, the play list file and the object information file reproducing the video information and the sub video information set;~~

~~_____ a display output process capable of outputting the button information, over the reproduced video information; and~~

~~a control process of controlling the [[a]] display output process device capable of displaying and outputting the sub video information in the reproduced sub video information set, over the reproduced video information, to highlight display the button video part, on the basis of the button information and the highlight information included in the header information in the reproduced button information sub video information set, wherein~~

~~_____ at least one of the plurality of button information includes normal button information for displaying a normal state button, selected button information for displaying a selected state button, and activated button information for displaying an activated state button.~~

23. (previously presented) An information record reproduction method comprising:

a first record process of recording video information to indicate a main-video;

a second record process of recording sub-video information set having sub-video information to indicate a sub-video displayable at least partially over the main-video and header information appended to the sub-video information;

a third record process of recording sub-video control information including: (i) sub-frame range information for specifying at least a partial area of the sub-video as a sub-frame; (ii) button information for defining the sub-frame displayed over the main-video, as a button video part which functions as a button; and (iii) highlight information for defining how to perform highlight display control with respect to the sub-frame;

a reproduction process of reproducing the video information, the sub-video information set, and the sub-video control information; and

a control process of controlling a display output device capable of displaying and outputting the sub-video information in the reproduced sub-video information set, over the reproduced video information, to highlight-display the sub-frame as the button video part, on the basis of the button information and the highlight information included in the reproduced sub-video control information.

24-31. (canceled)